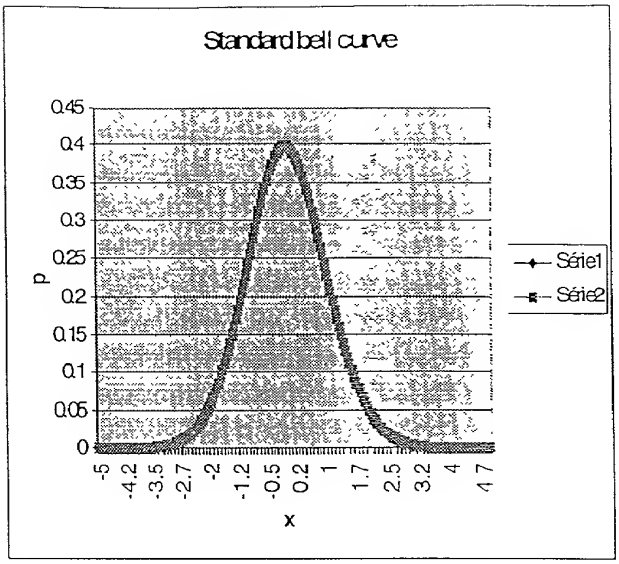


FIGURE 1

FIGURE 2

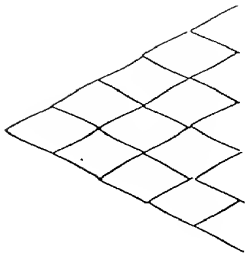


FIGURE 3

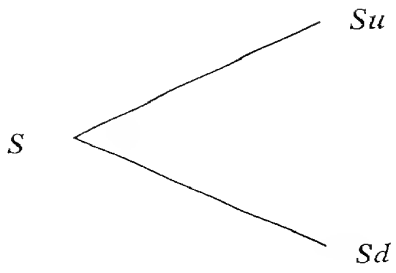


FIGURE 4

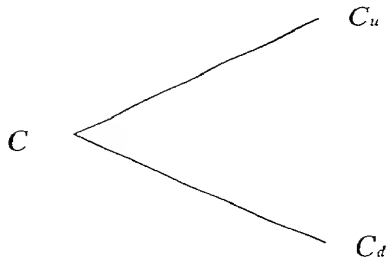


FIGURE 5

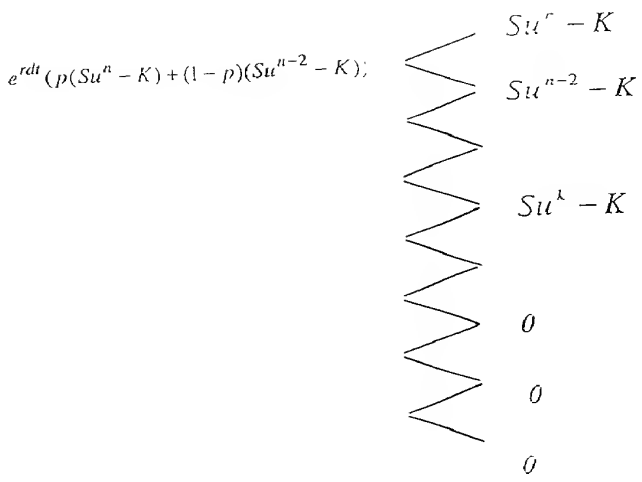


FIGURE 6

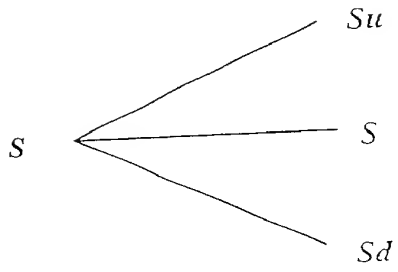


FIGURE 7

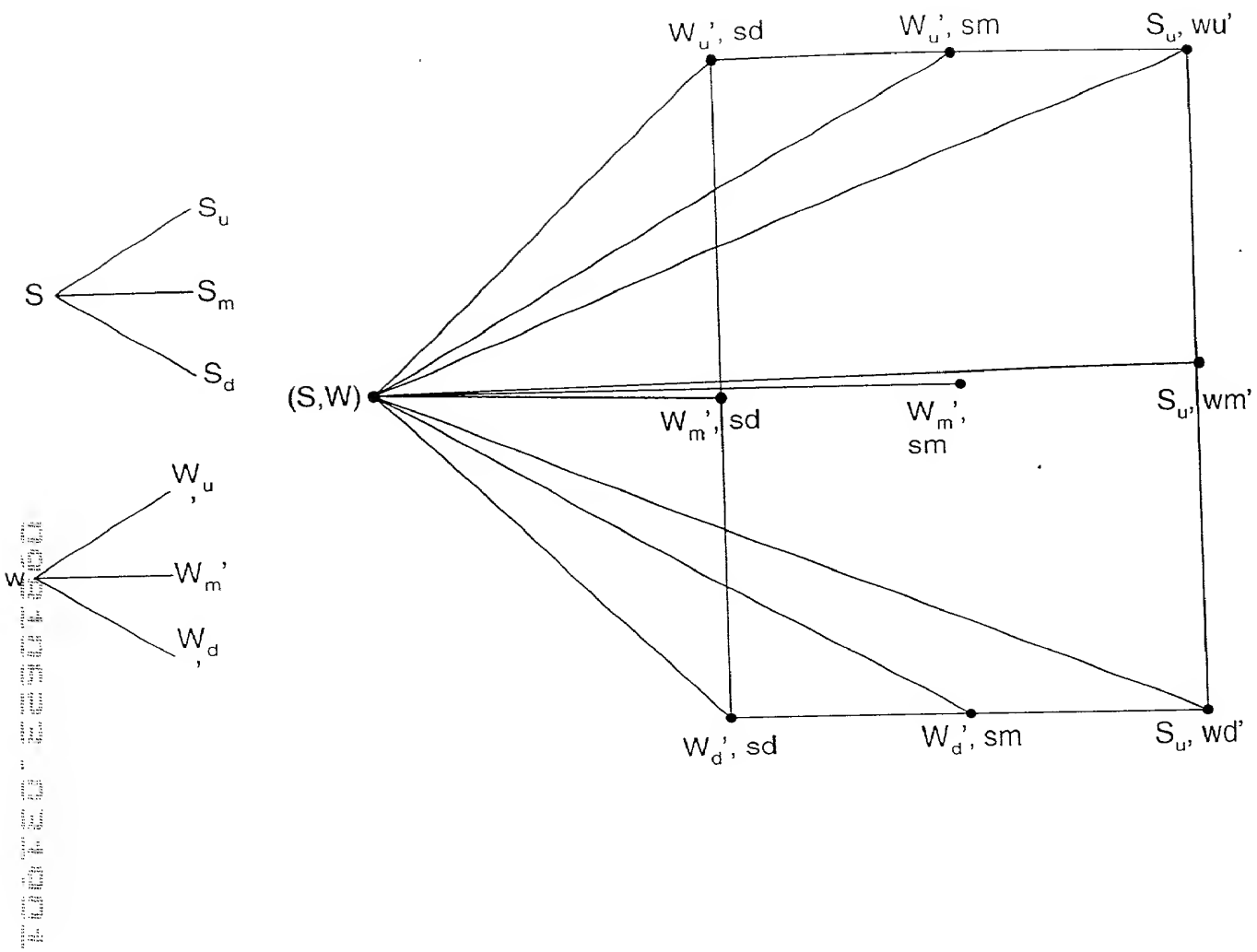

S
S_u
S_m
S_d
W
W_u'
W_m'
W_d'
(S,W)
W_u', sd
W_u', sm
S_u, wu'
W_m', sd
W_m', sm
S_u, wm'
W_d', sd
W_d', sm
S_u, wd'

FIG. 8

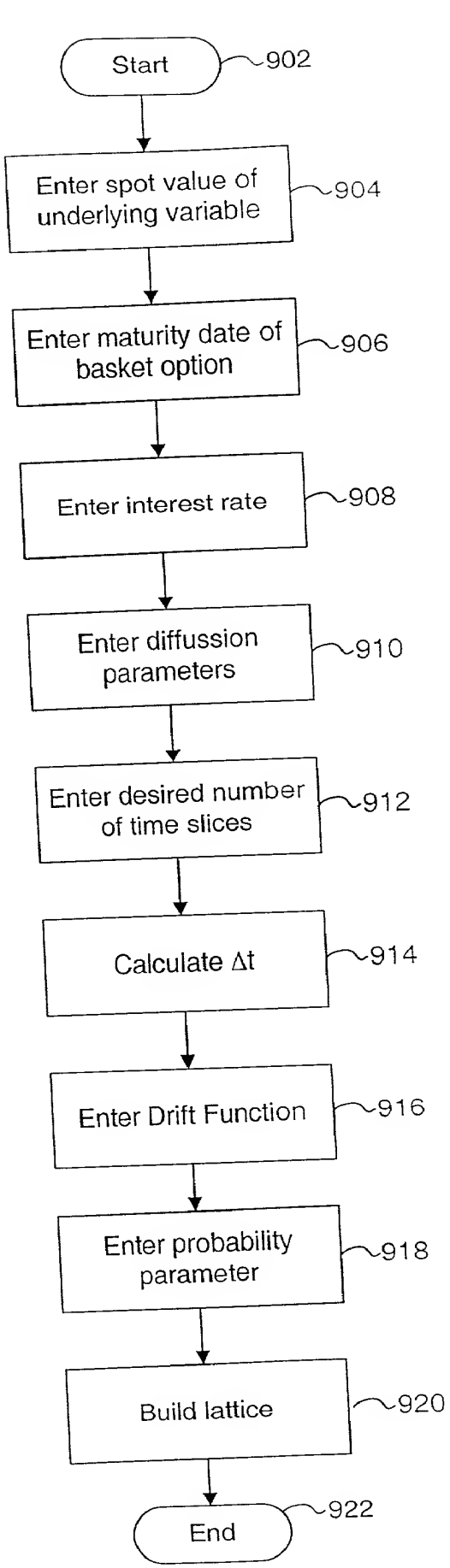

900
Start
902
Enter spot value of underlying variable
904
Enter maturity date of basket option
906
Enter interest rate
908
Enter diffussion parameters
910
Enter desired number of time slices
912
Calculate Δt
914
Enter Drift Function
916
Enter probability parameter
918
Build lattice
920
End
922

FIG. 9

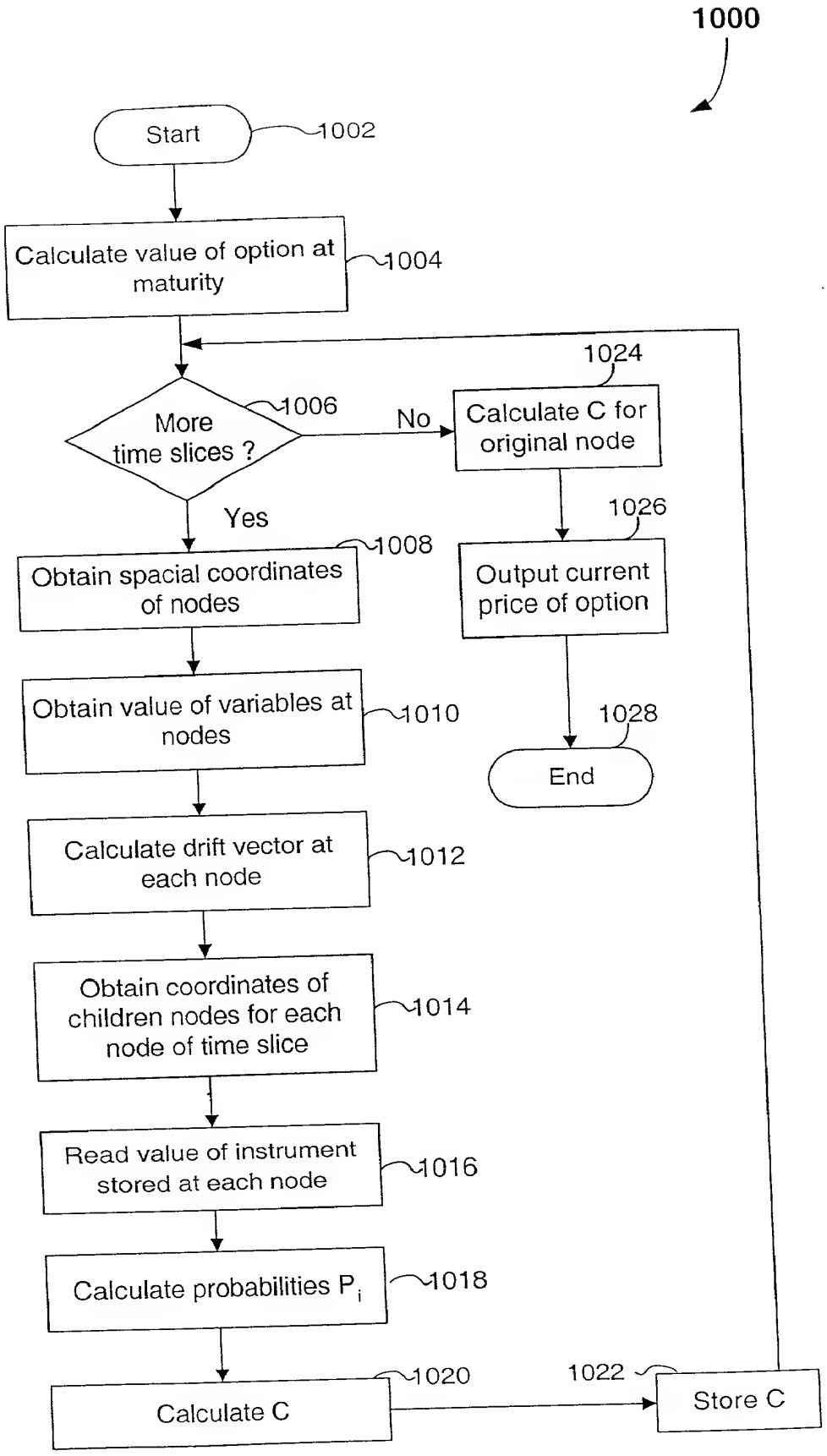

1000
Start
1002
Calculate value of option at maturity
1004
More time slices ?
1006
No
Yes
1024
Calculate C for original node
1026
Output current price of option
1028
End
1008
Obtain spacial coordinates of nodes
Obtain value of variables at nodes
1010
Calculate drift vector at each node
1012
Obtain coordinates of children nodes for each node of time slice
1014
Read value of instrument stored at each node
1016
Calculate probabilities P_i
1018
Calculate C
1020
1022
Store C

FIG. 10

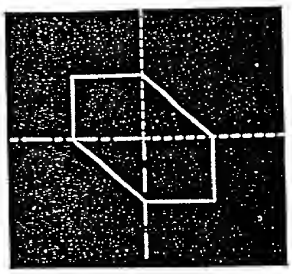


FIGURE 11

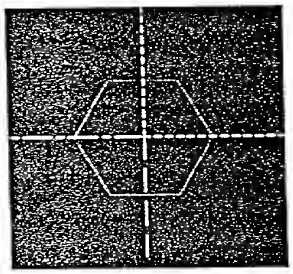
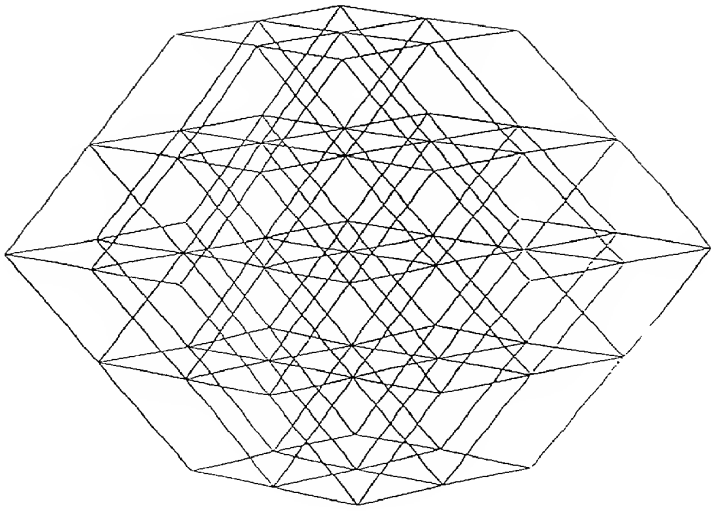


FIGURE 12



3 underlying assets, $t = 2$, 65 nodes

FIGURE 13

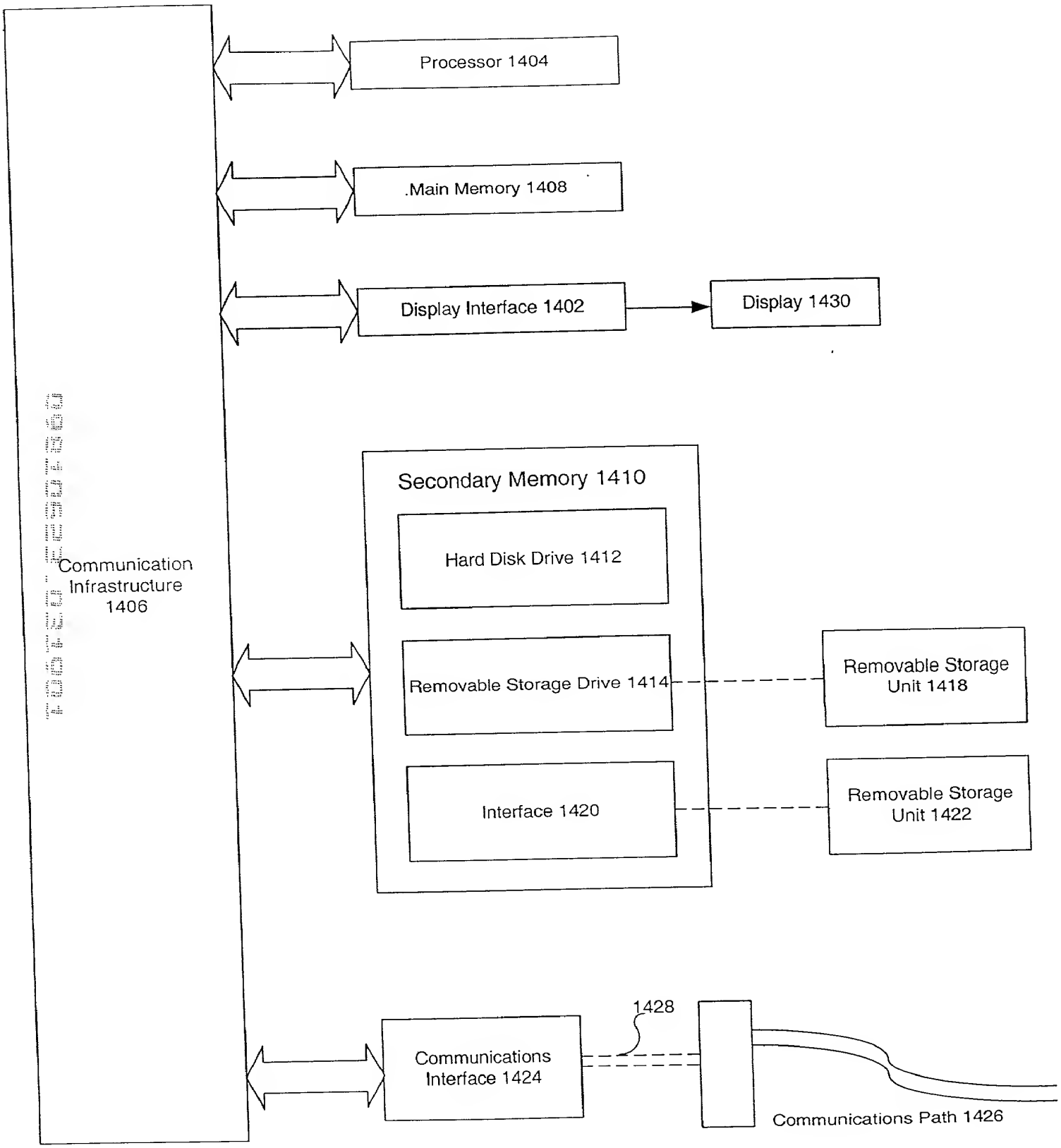

Computer System 1400
Processor 1404
.Main Memory 1408
Display Interface 1402
Display 1430
Communication Infrastructure 1406
Secondary Memory 1410
Hard Disk Drive 1412
Removable Storage Drive 1414
Removable Storage Unit 1418
Interface 1420
Removable Storage Unit 1422
1428
Communications Interface 1424
Communications Path 1426

FIG. 14

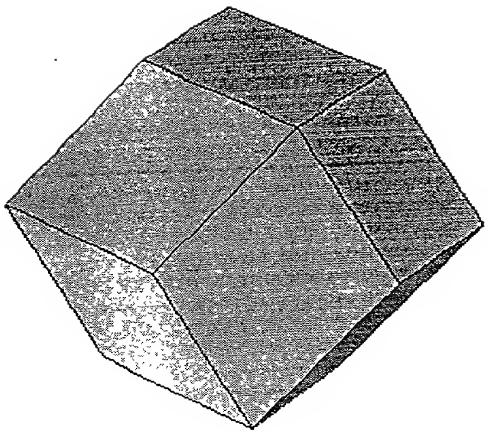


FIG. 15

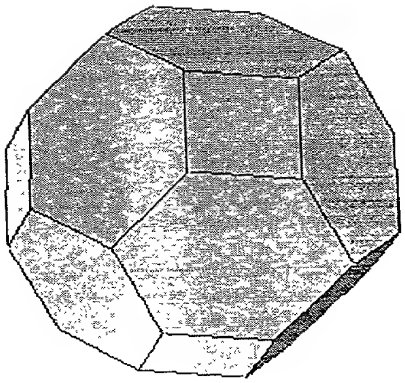


FIG 16